

#10/C 388  
12/13/02

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DATE: December 9, 2002

TO: Examiner Chunduru

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FROM: Carole Rasmussen on behalf of Heidi S. Nebel

NUMBER OF PAGES (Including cover): 14

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COMMENTS:

09/780,762

Please see the attached amendment and Auto-Reply.

Thank you,

Heidi S. Nebel

HSN/cr

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001

### Facsimile Cover Sheet

To: TECHNOLOGY CENTER 1600  
Company: Patent and Trademark Office  
Phone:  
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From: Matthew M. Catlett  
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Phone: 515-288-3887  
Fax: 515-282-6778

Date: March 21, 2002

Pages Including this  
cover page:

13

Comments: Amendment attached for:

Re: U. S. Serial No. 09/780,768  
Filed: February 9, 2001  
Title: METHOD FOR AMPLIFYING FULL LENGTH  
SINGLE STRAND POLYNUCLEOTIDE SEQUENCES  
Inventor: Connor et al.  
Our No. P04884US2

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Replyed From: 5152881338 to 5152881338 FAX (Eastern Standard Time)

## PATENT

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT : CONNOR *et al.*  
SERIAL NO : 09/780,762  
FILED : February 9, 2001  
TITLE : **METHOD FOR AMPLIFYING FULL LENGTH SINGLE  
STRAND POLYNUCLEOTIDE SEQUENCES**

Grp./A.U. : 1656  
Examiner : Chunduru, S.  
Conf. No. : 6610  
Docket No. : P04864US2

AMENDMENT AND RESPONSE

Assistant Commissioner for Patents  
Washington, D.C. 20231

Dear Sir:

The amendments and remarks below are provided in response to the non-final Office

Action dated January 8, 2002 (*PTO Paper No. 8*).

AMENDMENTIn the Specification

Please replace the paragraph beginning at page 3, line 8, with the following paragraph:

C1 --It is an object of the present invention to provide a method for amplifying cDNA by  
providing circularized first strand cDNA as template.--

## CERTIFICATE OF FACSIMILE TRANSMISSION (37 C.F.R. § 1.6(a)(3))

I hereby certify that this document and the documents referred to as enclosed therein are being transmitted  
via facsimile to: Technology Center 1600 (Art Unit 1656) 703-872-9306, Attn: Assistant Commissioner for Patents,  
Washington, D.C. 20231, on this 21st day of March, 2002.

*Kathy P. Anthofer*  
Kathy P. Anthofer

Please amend the paragraph beginning at page 10, line 10, as follows:

C2

Once the circular nucleic acid is formed, then a template extension amplification reaction is carried out with gene specific primers. The design of the first and second primers differs from that of traditional PCR of cDNA first in that using a single nucleic acid strand as template. The primers are instead designed so that each one has a 3' end of the primer which is toward either the 5' or 3' end of the polynucleotide. This means that the forward primer will typically be towards the 3' end of the molecule and the reverse primer will be towards the 5' end of the molecule. For example, if a known sequence comprises 5'-ATATATATGCGCGCGC-3' a forward primer would be 5'-CGCGCGCG-3' to hybridize with the 3' end of the molecule and the second or reverse primer would be 5'-ATATATAT-3' to hybridize with the 5' end of the molecule and having its 3' end towards the 5' of the target gene. See Figure 1. Design of primers for amplification and extension reactions are commonly known in the art of PCR amplification and the remainder of primer design is standard. A brief summary of oligonucleotide primer design is disclosed herein. In addition a discussion of primer design can be located in "Molecular biology Techniques Manual" third edition CRC Press, Editors, Coyne et al. In addition, there are a number of publically and commercially available computer programs to aid in design of primers including, BLAST, PrimerGen, Primer (Stanford), Amplify, Primer Design 1.04, PC-Rare, CODEHOP, Primer 3, and Net Primer (Premier Biosoft Int'l).

In the Claims

Please cancel claims 2, 18-20, 24, and 25.

Please amend claims 1, 6, 9-12, 15-17, 26 and 27 as follows:

1. (Amended)

A method for amplifying a cDNA comprising: